

Special Research Grants Program Aquaculture Research

FY 2016 Request for Applications (RFA)

APPLICATION DEADLINE: May 17, 2016

ELIGIBILITY: See Part III, A of RFA



United States
Department of
Agriculture

National Institute
of Food and
Agriculture

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE; U.S. DEPARTMENT OF AGRICULTURE

SPECIAL RESEARCH GRANTS PROGRAM: AQUACULTURE RESEARCH (AQUA)

INITIAL ANNOUNCEMENT

CATALOG OF FEDERAL DOMESTIC ASSISTANCE: This program is listed in the Catalog of Federal Domestic Assistance under **10.200**.

DATES: Applications must be received by **5:00 p.m. Eastern Time on May 17, 2016**.

Applications received after this deadline will normally not be considered for funding (see Part IV, C. of this RFA). Comments regarding this request for applications (RFA) are requested within 6 months from the issuance of this notice. Comments received after that date will be considered to the extent practicable.

STAKEHOLDER INPUT: The National Institute of Food and Agriculture (NIFA) seeks your comments about this RFA. We will consider the comments when we develop the next RFA for the program, if applicable, and we'll use them to meet the requirements of section 103(c)(2) of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7613(c)(2)). Submit written stakeholder comments by the deadline set forth in the DATES portion of this Notice via e-mail to: Policy@nifa.usda.gov. (This e-mail address is intended only for receiving comments regarding this RFA and not requesting information or forms.) In your comments, please state that you are responding to the Aquaculture Research RFA.

Visit the [NIFA website](#) to access a factsheet on the Center of Excellence (COE) designation process, including COE criteria, and a list of programs offering COE opportunities in fiscal year 2016. You can also review a recording of COE outreach webinars held in February and March of 2015 from the site. The COE webpages will be updated throughout FY 2016 with additional information, such as a summary of comments received from stakeholders.

EXECUTIVE SUMMARY: NIFA requests applications for the Aquaculture Research Competitive Grants Program (henceforth, Aquaculture Research program) for Fiscal Year (FY) 2016 to fund applied aquaculture research projects in the areas of: 1) genetics; 2) disease; 3) production systems; and 4) economics. The anticipated amount available for support of this program in FY 2016 is approximately \$1.2 million.

This notice identifies the objectives for Aquaculture Research program projects, the eligibility criteria for projects and applicants, and the application forms and associated instructions needed to apply for an Aquaculture Research program grant.

Note: eligibility for this program has changed from the previous year.

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PART I—FUNDING OPPORTUNITY DESCRIPTION

A. Legislative Authority and Background

The authority for the Aquaculture Research program is contained in the Competitive, Special, and Facilities Research Grant Act, Pub. L. No. 89-106, as amended (7 USC 450i(c)(1)(A)).

B. Purpose and Priorities

The purpose of the Aquaculture Research program is to support the development of an environmentally and economically sustainable aquaculture industry in the U.S. by generating new science-based information and technology to address industry constraints. Results of projects supported by this program are intended to help improve the profitability of the U.S. aquaculture industry, reduce the U.S. trade deficit, increase domestic food security, provide markets for U.S.-produced products, increase domestic aquaculture business investment opportunities, and provide more jobs for rural and coastal America.

Aquaculture contributes more than half of the seafood consumed globally, and this contribution is expected to grow. Although U.S. aquaculture production has shown growth in the past decade, the U.S. currently still has an approximately \$12 billion trade deficit in seafood products and imports more than 90% of seafood consumed. The factors that limit aquaculture in the U.S. are complex and multifaceted. Applied research in genetics, disease, production systems, and economics is needed to develop practical solutions that will facilitate growth of the U.S. aquaculture industry. This research will help reduce the U.S. trade deficit in seafood products and enhance the capacity of the U.S. aquaculture industry to contribute to domestic and global food security and economic growth.

Priorities defined in this RFA directly align with:

- The National Strategic Plan for Federal Aquaculture Research (https://www.whitehouse.gov/sites/default/files/microsites/ostp/NSTC/aquaculture_strategic_plan_final.pdf), developed by the Interagency Working Group on Aquaculture (under the Life Science Subcommittee of the National Science and Technology Council's Committee on Science), addressing Strategic Goals 2 (Genetics), 3 (Disease), 7 (Production Systems), and 9 (Socioeconomic and Business Research).
- The USDA Strategic Plan FY 2014-2018 (<http://www.usda.gov/documents/usda-strategic-plan-fy-2014-2018.pdf>), addressing both Strategic Goal 1: Assist Rural Communities to Create Prosperity so They Are Self-Sustaining, Repopulating, and Economically Thriving, and Strategic Goal 3: Help America Promote Agricultural Production and Biotechnology Exports as America Works to Increase Food Security;
- The Research, Education, and Economics Action Plan (http://www.ree.usda.gov/ree/news/USDA_2014_REE_Action_Plan_08-2014_Final.pdf) and specifically addresses: Goal 1. Sustainable Intensification of Agricultural Production; Goal 2. Responding to Climate and Energy Needs; and Goal 3. Sustainable Use of Natural Resources; and

- The NIFA Strategic Plan - FY 2014-2018 (<http://nifa.usda.gov/resource/nifa-strategic-plan-fy2014-fy2018>), specifically, GOAL 1: Science Catalyze exemplary and relevant research, education, and extension programs: SUB-GOAL 1.1: Advance our nation's ability to fight hunger and ensure global food security.

NIFA's programs are intended to promote advances in U.S. food, agriculture, and forestry. Aquaculture is increasingly worldwide in scope and reach. If appropriate, applicants to the Aquaculture Research program may include international partnerships or engagement in proposals. In doing so, applicants are to keep in mind that **any international activity included in a proposal must first and foremost support the Aquaculture Research program's domestic aquaculture program goals.** Applicants must clearly describe and demonstrate how international activities proposed in the application will contribute to and support the objectives and desired outcomes within the United States, while also benefiting the international partner.

NIFA encourages (but does not require) projects that develop content suitable for delivery through eXtension (<https://extension.org/>).

C. Program Area Description

For this FY 2016 Aquaculture Research program, NIFA is soliciting applied aquaculture research applications that directly address major constraints to the U.S. aquaculture industry and focus on one or more of the following Program Area Priorities:

- Genetics of commercial aquaculture species;
- Critical disease issues impacting aquaculture species;
- Design of environmentally and economically sustainable aquaculture production systems;
- Economic research for increasing aquaculture profitability.

Other key information:

- All applications must adhere to the requirements beginning in Part IV
- Applicants must state which of the four Program Area Priorities they are primarily addressing.
- This program is limited to applied research.
- Priority will be given to applications that clearly state how the research results or technology will be transferred to end-users outside of direct scientific peers.
- Applications that involve industry participation are encouraged.
- Applicants must clearly describe how their specific research project will advance aquaculture in the U.S. in the short (2-5 years) and medium term (5-10 years).
- Applicants must include power analyses, if experimental animals are used. Studies comparing treatment groups must justify the sample size for each experimental group, considering the magnitude of the treatment difference for the response variable, standard deviation for the response variable, power, and level of significance (i.e., probability of making a Type I error).
- Applicants must provide a plan to release research results to the public in a timely manner and provide a description and budgeted plan for the release of research results that is compliant with the terms and conditions that govern USDA NIFA-funded projects in

aquaculture. Terms and conditions can be found at:

<http://www.nifa.usda.gov/business/awards/awardterms.html>

- The inclusion of students actively engaged in the scholarship of the research projects is strongly encouraged (particularly the inclusion of undergraduate student interns and trainees, graduate students, and post-doctoral research associates to provide hands-on, experiential learning and training opportunities). Actively engaged students should be encouraged to contribute to presentations, articles, posters, and other expressions of scholarship that reflect their own work on the project.

PART II—AWARD INFORMATION

A. Available Funding

The anticipated amount available for NIFA support of this program in FY 2016 is approximately \$1.2 million, which is anticipated to fund four to five awards in FY 2016. The funds will be awarded through a grant award. There is no commitment by USDA to fund any particular application or to make a specific number of awards.

Awards issued as a result of this RFA will have designated the Automated Standard Applications for Payment System (ASAP), operated by the Department of Treasury's Bureau of the Fiscal Service, as the payment system for funds. For more information, see <http://fms.treas.gov/aboutfms/index.html>

B. Types of Applications

In FY 2016, you may only submit an application to the Aquaculture Research program as a New or Resubmitted application.

New application. This is a project application that has not been previously submitted to the Aquaculture Research program. We will review all new applications competitively using the selection process and evaluation criteria described in Part V—Application Review Requirements.

Resubmitted application. This is an application that had previously been submitted to the Aquaculture Research program but not funded. Project Directors (PDs) must respond to the previous review panel summary (see Response to Previous Review, Part IV). Resubmitted applications must be received by the relevant due dates, will be evaluated in competition with other pending applications in appropriate area to which they are assigned, and will be reviewed according to the same evaluation criteria as new applications.

C Project Types

This program will make research awards up to \$300,000 (total project, not per year). The start date of a project must be before October 1, 2016. Project periods for this program are limited to a maximum duration of 2 years. Recipients may be eligible for a no-cost extension for a third year, but no carryover or extension is permitted for any project beyond 3 years (any unexpended funds must be returned to the U.S. Treasury).

D. Responsible and Ethical Conduct of Research

In accordance with sections 2, 3, and 8 of 2 CFR Part 422, institutions that conduct USDA-funded extramural research must foster an atmosphere conducive to research integrity, bear primary responsibility for prevention and detection of research misconduct, and maintain and effectively communicate and train their staff regarding policies and procedures. In the event an application to NIFA results in an award, the Authorized Representative (AR) assures, through

acceptance of the award, that the institution will comply with the above requirements. Award recipients shall, upon request, make available to NIFA the policies, procedures, and documentation to support the conduct of the training.

See <http://nifa.usda.gov/responsible-and-ethical-conduct-research> for further information.

E. Scientific Peer Review

Subsection (c)(5) of the Competitive, Special, and Facilities Research Grant Act, as amended (7 U.S.C. 450i(c)(5)), requires applicants to conduct scientific peer review of their proposed research activities prior to the Secretary making a grant award under this authority. Regulations implementing this requirement are set forth in 7 CFR Part 3400.20.

The regulations impose the following requirements:

(1) Scientific peer review. Prior to the award of a standard or continuation grant, any proposed research project shall have undergone a review arranged by the grantee. Such review must be a scientific peer review conducted in accordance with 7 CFR 3400.21. It must be credible, independent, and arranged by the grantee. It should provide an appraisal of technical quality and relevance sufficient for an organizational representative to make an informed judgment as to whether the proposal is appropriate for submission for federal support. Often this review is conducted by faculty peers. It may include USDA employees, but should not be conducted solely by USDA employees. Although evidence of a scientific peer review is not required until an award is ready to be finalized, peer reviews can improve the quality of a proposal. For this reason, we encourage applicants to have proposals peer reviewed before submission.

(2) Notice of completion and retention of records: A notice of completion of the review shall be conveyed in writing to NIFA as part of the Other Attachments (Field 12. of the R&R Other Project Information Form). The written notice constitutes certification by the applicant that a review in compliance with these regulations has occurred. Applicants are not required to submit results of the review to NIFA; however, proper documentation of the review process and results should be retained by the applicant. The notice should state “In accordance with 7 CFR 3400.21 this memo is to certify that this project [title] has undergone a scientific peer review.” If this notification is included within the application, a signature is not necessary. If, however, it is submitted to NIFA after the application is submitted through Grants.gov, the memo must be on the institution’s letterhead and signed by the Authorized Representative.

PART III—ELIGIBILITY INFORMATION

A. Eligible Applicants

Applications may only be submitted by State agricultural experiment stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals for the purpose of conducting research, extension, or education activities to facilitate or expand promising breakthroughs in areas of the food and agricultural sciences of importance to the United States.

Award recipients may subcontract to organizations not eligible to apply provided such organizations are necessary for the conduct of the project. Failure to meet an eligibility criterion by the time of application deadline may result in the application being excluded from consideration or, even though an application may be reviewed, will preclude NIFA from making an award.

B. Cost Sharing or Matching

In accordance with section 1492 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3371), as added by section 7128 of the Agricultural Act of 2014 (Pub. L. 113-79), for grants awarded after October 1, 2014, the recipient of an award from the Aquaculture Research program must provide funds, in-kind contributions, or a combination of both, from sources other than funds provided through such grant in an amount that is at least equal to the amount awarded by NIFA unless one of the exemptions described herein is applicable. Note that NIFA included information at: http://www.nifa.usda.gov/business/awards/matching_require.html to further assist you in determining if you must meet the new matching requirement.

The matching funds requirement does not apply to grants awarded:

1. To a research agency of the United States Department of Agriculture (USDA); or
2. To an entity eligible to receive funds under a capacity and infrastructure program (as defined in section 251(f)(1)(C) of the Department of Agriculture Reorganization Act of 1994, 7 U.S.C. 6971(f)(1)(C)), including a partner (see Part VIII, E. Definitions for definition of partnership) of such an entity.

Entities eligible to receive funds under a capacity and infrastructure program and exempt from the matching funds requirement include:

- a. 1862 Land-grant Institutions, including State Agricultural Experiment Stations receiving funding under the Hatch Act of 1887
- b. 1890 Land-grant Institutions
- c. 1994 Land-grant Institutions

- d. Entities eligible to receive funds under the of Continuing Animal Health and Disease, Food Security, and Stewardship Research, Education, and Extension Program Funds — Capacity and Infrastructure Program (CIP)
- e. Hispanic-Serving Agricultural Colleges and Universities (HSACU)
- f. Insular Area Schools Eligible to Receive Funds from the Distance Education/Resident Instruction Grant Programs
- g. Entities eligible to receive funds under the of McIntire-Stennis Cooperative Forestry Program Funds
- h. Non-Land Grant Colleges of Agriculture (NLGCA) – (for exemption from the new matching requirement, these applications must include NLGCA certification, see instructions for requesting certifications at <http://www.nifa.usda.gov/form/form.html>, and for attaching the certification in Part IV, B. of this RFA).
- i. Entities eligible to receive funds under the of funds under a program established under section 1417(b) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3152(b)), including: (1) 1890 Institution Teaching, Research, and Extension Capacity Building Grants Program; (2) Higher Education Challenge Grants Program; (3) Higher Education Multicultural Scholars Program; and (4) Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Grants Program.
- j. Individual public or private, nonprofit Alaska Native-Serving and Native Hawaiian-Serving Institutions of higher education (see 20 U.S.C. 1059d).

A proposal submitted in response to this RFA may indicate that the work will be completed by multiple entities as a collaborative partnership. All partners must have a substantial involvement in the project throughout the life of the project. If a partnership among multiple entities is proposed, the proposal must clearly identify the following:

- 1) A narrative of each entity's clearly established role in the project;
- 2) How each entity involved as a partner on the project will contribute to execution of project objectives, determination of experimental design, development of the project work plan and time table, and submission of collaborative, timely reports; and
- 3) A comprehensive project budget that reflects each entity's financial or third party in-kind contribution (see section 2 of 7 CFR 3430 or section 96 of 2 CFR part 200) to the total project budget costs.

If a proposal indicates that the work on the project will be completed by multiple entities as partners, and at least one entity is exempt from the matching requirement under #2 above, the entire project will be exempt from the matching requirement regardless of whether all entities involved are otherwise exempt. Any partner entity can serve as the lead entity on the project. All partners must be significantly involved in the project.

After proposals have been recommended for award, NIFA will determine if the submitted proposal and proposed division of work reflects substantial involvement of all entities involved. If a proposal is recommended for award to a lead entity not otherwise exempt from the matching requirement and the proposal does not reflect substantial involvement of at least one partner that is exempt under #2 above, then the matching requirement will apply. Exemption from the matching requirement for an entity not otherwise exempt is limited to the project for which it is a partner.

Waiver of Match - NIFA may waive the matching funds requirement for a recipient for one year with respect to a competitive grant that involves research or extension activities that are consistent with the priorities established by the National Agricultural Research, Education, Extension and Economics Advisory Board (NAREEEAB) for the year involved. To determine whether proposed activities are consistent with the priorities of the NAREEEAB, please refer to the [2014 Research, Education and Economics Action Plan](#). Instructions for requesting a waiver are included in Part IV, C. of this RFA.

C. Centers of Excellence

Pursuant to Section 7214 of the Agricultural Act of 2014 (Pub. L. 113-79), beginning in Fiscal Year 2015, for applicable competitive research and extension programs, NIFA will be recognizing and providing priority in the receipt of funding to applications from “centers of excellence” that have been established for purposes of carrying out research, extension, and education activities relating to the food and agricultural sciences. In July of 2014, NIFA held listening sessions and accepted written comments from stakeholders to inform NIFA’s implementation of the centers of excellence (COE) provision. Information from the webinars and a summary of the input gathered are available on NIFA’s website at: <http://nifa.usda.gov/centers-excellence>.

A COE is composed of 1 or more of the following entities that provide financial or in-kind support to the center of excellence. Therefore, an eligible applicant who wishes to be considered as a center of excellence must be one of the following entities that provides financial or in-kind support to the Center being proposed, as described in the grant application.

- (A) State agricultural experiment stations;
- (B) colleges and universities;
- (C) university research foundations;
- (D) other research institutions and organizations;
- (E) Federal agencies;
- (F) national laboratories;
- (G) private organizations, foundations, or corporations;
- (H) individuals; or

(I) any group consisting of 2 or more of the entities described in (A) through (H).

Standard grant applicants may be considered for COE designation. See Part IV, B. of this RFA for additional requirements that eligible applicants must meet to be considered a center of excellence.

PART IV—APPLICATION AND SUBMISSION INFORMATION

A. Electronic Application Package and Content and Form of Application Submission

Only electronic applications may be submitted via Grants.gov to NIFA in response to this RFA. We urge you to submit early to the Grants.gov system. For an overview of the Grants.gov application process see <http://www.grants.gov/web/grants/applicants/grant-application-process.html>.

New Users of Grants.gov

Prior to preparing an application, we recommend that the Project Director/Principal Investigator (PD/PI) first contact an Authorized Representative (AR, also referred to as Authorized Organizational Representative or AOR) to determine if the organization is prepared to submit electronic applications through Grants.gov. If not (e.g., the institution/organization is new to the electronic grant application process through Grants.gov), then the one-time registration process must be completed PRIOR to submitting an application. It can take as long as 2 weeks to complete the registration process so it is critical to begin as soon as possible. In such situations, the AR should go to **“Register” in the top right corner of the Grants.gov web page (or go to <http://www.grants.gov/web/grants/register.html>) for information on registering the institution/organization with Grants.gov.** Part II.1. of the NIFA Grants.gov Application Guide contains detailed information regarding the registration process. Refer to item 2. below to locate the “NIFA Grants.gov Application Guide”.

Steps to Obtain Application Package Materials

To receive application materials:

1. You must download and install a version of Adobe Reader compatible with Grants.gov to access, complete, and submit applications. For basic system requirements and download instructions, see <http://www.grants.gov/web/grants/support/technical-support/software/adobe-reader-compatibility.html>. Grants.gov has a test package that will help you determine whether your current version of Adobe Reader is compatible.
2. To obtain the application package from Grants.gov, go to <http://www.grants.gov/web/grants/applicants/download-application-package.html> and enter the funding opportunity number

Funding Opportunity Number: USDA-NIFA-SRGP-005776

in the appropriate box and click “Download Package.” From the search results, click “Download” to access the application package.

Contained within the application package is the “NIFA Grants.gov Application Guide.” This guide contains an introduction and general Grants.gov instructions, information

about how to use a Grant Application Package in Grants.gov, and instructions on how to complete the application forms.

If you require assistance to access the application package (e.g., downloading or navigating Adobe forms) **or submitting the application**, refer to resources available on the Grants.gov website (<http://www.grants.gov/web/grants/applicants/applicant-resources.html>). Grants.gov assistance is also available at:

Grants.gov customer support

800-518-4726 Toll-Free or 606-545-5035

Business Hours: 24 hours a day, 7 days a week. Closed on [federal holidays](#).

Email: support@grants.gov

Grants.gov iPortal (see <https://grants-portal.psc.gov/Welcome.aspx?pt=Grants>):

Top 10 requested help topics (FAQs), Searchable knowledge base, self-service ticketing and ticket status, and live web chat (available 7 a.m. - 9 p.m. ET). Get help now!

Have the following information available when contacting Grants.gov:

- Funding Opportunity Number (FON)
- Name of agency you are applying to
- Specific area of concern

B. Content and Form of Application Submission

You should prepare electronic applications following Parts V and VI of the NIFA Grants.gov Application Guide. This guide is part of the corresponding application package (see Section A. of this Part). The following is **additional information** needed to prepare an application in response to this RFA. **If there is discrepancy between the two documents, the information contained in this RFA is overriding.**

Note the attachment requirements (e.g., PDF) in Part III section 3. of the guide. ANY PROPOSALS THAT ARE NON-COMPLIANT WITH THE REQUIREMENTS (e.g., content format, PDF file format, file name restrictions, and no password protected files) WILL BE AT RISK OF BEING EXCLUDED FROM NIFA REVIEW. Grants.gov does not check for NIFA required attachments or that attachments are in PDF format; see Part III section 6.1 of the guide for how to check the manifest of submitted files. Partial applications will be excluded from NIFA review. We will accept subsequent submissions of an application until close of business on the closing date in the RFA (see Part V, 2.1 of the NIFA Grants.gov Application Guide for further information).

For any questions related to the preparation of an application, review the NIFA Grants.gov Application Guide and the applicable RFA. If assistance is still needed for preparing application forms content, contact:

- Email: electronic@nifa.usda.gov
- Phone: 202-401-5048
- Business hours: Monday through Friday, 7 a.m. – 5 p.m. ET, excluding federal holidays.

1. SF 424 R&R Cover Sheet

Information related to the questions on this form is dealt with in detail in Part V, 2. of the NIFA [Grants.gov](https://www.nifa.gov) Application Guide. See Section 2.18 of the NIFA Application Guide which provides that the applicant's electronic signature on the SF-424 affirms its agreement with Federal representations and assurances (e.g., Prohibition against FY 16 Appropriations Act Funding under Grants and Cooperative Agreements with Entities Requiring Certain Internal Confidentiality Agreements.)

2. SF 424 R&R Project/Performance Site Location(s)

Information related to the questions on this form is dealt with in detail in Part V, 3. of the NIFA Grants.gov Application Guide.

3. R&R Other Project Information Form

Information related to the questions on this form is dealt with in detail in Part V, 4. of the NIFA Grants.gov Application Guide.

- a. **Field 7. Project Summary/Abstract.** The summary should also include the relevance of the project to the goals of the Aquaculture Research program and should be written for a general audience, because it may be used for public databases. See Part V. 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to a suggested template.

b. Field 8. Project Narrative.

NOTE: The Project Narrative shall not exceed a total of **15 pages**, including all tables and figures. (12-point font; line spacing not exceeding six lines per vertical inch; and 1-inch margins) regardless of whether it is single- or double-spaced. Please take note, as this differs from other NIFA grant programs. Appendices, such as support letters to the Project Narrative, are allowed if they are directly germane to the proposed project and are not included in the 15-page limit. We have established this maximum (15 pages) to ensure fair and equitable competition. Applications exceeding this page limit will be returned without review.

Applicants requesting consideration of center of excellence status must include their justification within the 15-page limit of the project narrative

The Project Narrative attachment must include all of the following:

1) Response to Previous Review (if applicable)

This requirement only applies to Resubmitted Applications as described in Part II, B. The Project Narrative attachment should include two components: 1) a one-page response to the previous review panel summary titled "Response to Previous Review" included as the first page of the attachment; and 2) the 15-page Project Narrative, as required (see Part IV, B.3. b above). The one-page Response to Previous Review does not count against the 15-page limit of the Project Narrative.

2) Project Narrative

a. Introduction

- i. Include a clear statement of the long-term goal(s) and supporting objectives of the proposed project.
- ii. Summarize the body of knowledge or past activities that substantiate the need for the proposed project.
- iii. Describe ongoing or recently completed activities significant to the proposed project including the work of key project personnel.
- iv. Include preliminary data/information pertinent to the proposed project. All works cited should be referenced.

b. Rationale and Significance

- i. Concisely present the rationale behind the proposed project and reasons for performing the work at the proposing institution;
- ii. Describe the specific relationship of the proposed project to the Program Area Priorities, and state which of the four Program Area Priorities the proposal is primarily addressing. Applications that do not address at least one Program Area Priority will not be reviewed;
- iii. The potential long-range improvement in and sustainability of the U.S. aquaculture industry should be clearly shown;
- iv. Estimates of the magnitude of the issues and their relevance to stakeholders and to ongoing state-federal food and agricultural research, education, and extension programs; and
- v. The role of stakeholders in problem identification, planning, implementation, and evaluation as appropriate. State the degree of industry participation or involved in the proposed project.

c. Approach

The activities proposed or problems being addressed must be clearly stated and the approaches applied are to be clearly described. Specifically, this section must include:

- i. A description of the activities proposed and the sequence in which the activities are to be performed;
- ii. Methods to be used in carrying out the proposed project, including the feasibility of the methods;
- iii. Expected outcomes;
- iv. Means by which results will be analyzed, assessed, or interpreted;
- v. How results or products will be used;
- vi. Plans to communicate results to stakeholders and the public (e.g., extension, technology transfer, education activities, workshops) that articulate how the research results or technology will be transferred to end-users outside of direct scientific peers;
- vii. How this specific research project will advance aquaculture advance U.S. aquaculture in the short (2-5 years) and medium term (5-10 years). How the impacts will be evaluated and reported (a logic model is one suggestion to do this);
- viii. If undergraduate and graduate students, and post-doctoral research fellows are included, how they will be actively engaged in the scholarship of the research;
- ix. Pitfalls that may be encountered;
- x. Limitations to proposed procedures;

- xi. A full explanation of any materials, procedures, situations, or activities related to the project that may be hazardous to personnel, along with an outline or precautions to be exercised to avoid or mitigate the effects of such hazards; and
- xii. A timeline for attainment of objectives and for production of deliverables that includes annual milestones with specific, measurable outcomes.

Center of Excellence Justification

Applicants who wish to be considered as centers of excellence must provide a brief justification statement at the end of their Project Narratives and within the page limits provided, describing how they meet the standards of a center of excellence, based on the following criteria:

(A) the ability of the center of excellence to ensure coordination and cost effectiveness by reducing unnecessarily duplicative efforts regarding research, teaching, and extension in the implementation of the proposed research and/or extension activity outlined in this application;

(B) in addition to any applicable matching requirements, the ability of the center of excellence to leverage available resources by using public-private partnerships among agricultural industry groups, institutions of higher education, and the Federal Government in the implementation of the proposed research and/or extension activity outlined in this application. Resources leveraged should be commensurate with the size of the award;

(C) the planned scope and capability of the center of excellence to implement teaching initiatives to increase awareness and effectively disseminate solutions to target audiences through extension activities in the implementation of the proposed research and/or extension activity outlined in this application; and

(D) the ability or capacity of the center of excellence to increase the economic returns to rural communities by identifying, attracting, and directing funds to high-priority agricultural issues in support of and as a result of the implementation of the proposed research and/or extension activity outlined in this application.

Additionally, where practicable (not required), center of excellence applicants should describe proposed efforts to improve teaching capacity and infrastructure at colleges and universities (including land-grant colleges and universities, cooperating forestry schools, certified Non-Land Grant Colleges of Agriculture (NLGCA) (list of certified NLGCA is available at http://www.nifa.usda.gov/funding/pdfs/nlgca_colleges.pdf), and schools of veterinary medicine).

c. Field 12. Add Other Attachments.

Non-Land Grant College of Agriculture (NLGCA) Certification. Applicants claiming exemption from the new matching requirements as NLGCA, must attach the NLGCA certification letter they requested and received from NIFA. Title the attachment 'NLGCA

Certification’ and save file as ‘NLGCACertification’. To request certification as an NLGCA, complete the form at <http://www.nifa.usda.gov/form/form.html>. Note that certification can take up to 30 days from submission of request form. **See Part III Section 3.1 of the NIFA Grants.gov Application Guide for NIFA attachment specifications.**

Scientific Peer Review Certification Documentation. Notice that the scientific peer review has been completed should be included in the application (see Part II, D. item 2.).

4. R&R Senior/Key Person Profile (Expanded)

Information related to the questions on this form is dealt with in detail in Part V, 5. of the NIFA Grants.gov Application Guide. This section of the Guide includes information about the people who require a Senior/Key Person Profile, and details about the Biographical Sketch and the Current and Pending Support, including a link to a suggested template for the Current and Pending Support.

5. R&R Personal Data – As noted in Part V, 6. of the NIFA Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award. However, NIFA strongly encourages applicants to provide the requested information to help NIFA identify and address any inequities based on gender, race, ethnicity, or disability of its proposed PDs/PIs and co-PDs/PIs. Information not submitted will seriously undermine the statistical validity, and therefore the usefulness, of information received from others. The information you submit will be kept confidential and will be used only for tracking and statistical purposes necessary to meet the demands of the agency and will not be part of the review process.

6. R&R Budget

Information related to the questions on this form is dealt with in detail in Part V, 7. of the NIFA Grants.gov Application Guide.

c. Matching Funds

If you conclude that matching funds are not required as specified under Part III, B. Cost-Sharing or Matching, you must include a justification in the Budget Narrative. We will consider this justification when ascertaining final matching requirements or in determining if required matching can be waived. NIFA retains the right to make final determinations regarding matching requirements.

For grants that require matching funds as specified under Part III, B., the Budget Narrative should include written verification of commitments of matching support (including both cash and in-kind contributions) from third parties. Written verification means:

(a) For any third party cash contributions, a separate pledge agreement for each donation, signed by the authorized representatives of the donor organization (and the applicant organization ONLY if provided after submission of the application), must include: (1) The donor’s name, address, and telephone number; (2) the name of the applicant organization; (3) the title of the project; (4) the dollar amount of the cash donation (the budget narrative must describe how the

cash donation will be used); (5) a statement that the donor will pay the cash contribution during the grant period; and (6) whether the applicant can designate cash as the applicant deems necessary or the cash contribution has been designated to a particular budget item.

(b) For any third party in-kind contributions, a separate pledge agreement for each contribution, signed by the authorized representatives of the donor organization (and the applicant organization ONLY if provided after submission of the application), must include: (1) The donor's name, address, and telephone number; (2) the name of the applicant organization; (3) the title of the project; (4) a good faith estimate of the current fair market value of the third party in-kind contribution and a description of how the fair market value was determined; and (5) a statement that the donor will make the contribution during the grant period.

Summarize on a separate page the sources and amount of all matching support from outside the applicant institution and place that information in the proposal as part of the Budget Narrative. You must place all pledge agreements in the proposal immediately following the summary of matching support.

Establish the value of applicant contributions in accordance with applicable cost principles. Refer to 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards", for further guidance and other requirements relating to matching and allowable costs.

7. Supplemental Information Form

Information related to the questions on this form is dealt with in detail in Part VI, 1. of the NIFA Grants.gov Application Guide.

- a. Field 2. Program to which you are applying.** Enter the program code name (i.e., enter "AQUACULTURE RESEARCH") and the program code (i.e., enter "AQUA"). Note that accurate entry of the program code is very important for proper and timely processing of an application.
- b. Field 8. Conflict of Interest List.** See Part VI, 1.8 of the NIFA Grants.gov Application Guide for further instructions and a link to a suggested template.

C. Submission Dates and Times

Prior to electronic submission of the application via Grants.gov, it is strongly recommended that an administrative review be conducted to ensure that an application complies with all application preparation instructions. An application checklist is included in Part VII of the NIFA Grants.gov Application Guide to assist with this review.

Instructions for submitting an application are included in Part IV, Section 1.9 of the NIFA Grants.gov Application Guide.

Applications must be received by Grants.gov by **5:00 p.m. Eastern Time on May 17, 2016**. Applications received after this deadline will normally not be considered for funding.

If you have trouble submitting an application to Grants.gov, you should FIRST contact the Grants.gov Help Desk to resolve any problems. Keep a record of any such correspondence. See Part IV. A. for Grants.gov contact information.

We send email correspondence to the AR regarding the status of submitted applications. Therefore, applicants are strongly encouraged to provide accurate e-mail addresses, where designated, on the SF-424 R&R Application for Federal Assistance.

If the AR has not received correspondence **from NIFA** regarding a submitted application within 30 days of the established deadline, contact the Agency Contact identified in Part VII of the applicable RFA and request the proposal number assigned to the application. **Failure to do so may result in the application not being considered for funding by the peer review panel. Once the application has been assigned a proposal number, this number should be cited on all future correspondence.**

D. Funding Restrictions

Section 713 of the Consolidated Appropriations Act, 2016 (Pub. L. 114-113) limits indirect costs to 30 percent of the total Federal funds provided (or 42.857 percent of total direct costs) under each award. Therefore, when preparing budgets, you should limit your request for the recovery of indirect costs to the lesser of your institution's official negotiated indirect cost rate or the equivalent of 30 percent of total Federal funds awarded. See Part V section 7.9 of the NIFA Grants.gov Application Guide for further indirect cost information. See webpage at <http://nifa.usda.gov/indirect-costs> for indirect cost options.

NIFA has determined that grant funds awarded under this authority may not be used for the renovation or refurbishment of research, education or extension space; the purchase or installation of fixed equipment in such space; or the planning, repair, rehabilitation, acquisition or construction of buildings or facilities.

The use of grant funds to plan, acquire, or construct a building or facility is not allowed under this program. With prior approval, and in accordance with the cost principles set forth in 2 CFR part 220 (Circular No. A-21), some grant funds may be used for minor alterations, renovations, or repairs deemed necessary to retrofit existing teaching or research spaces in order to carry out a funded project. However, requests to use grant funds for such purposes must demonstrate that the work is essential to achieving the major purpose of the project. Grant funds may not be used for endowment investing.

Statutory language or agency policy limits the maximum potential funding period (including any awards transferred from another institution or organization) to 3 years in duration. The funding period will commence on the effective date cited in the award instrument. Any such limitation also applies to subcontracts made under awards subject to a funding period limitation.

E. Other Submission Requirements

You should follow the submission requirements noted in Part IV, section 1.9 in the document entitled “NIFA Grants.gov Application Guide.”

Applicants are strongly encouraged to review the American Fisheries Society document *Guidelines for the Use of Fishes in Research* (2004) which can be found at: http://fisheries.org/docs/policy_useoffishes.pdf when developing applications for submission to this RFA.

For information about the **status of a submitted application**, see Part III., section 6. of the NIFA Grants.gov Application Guide.

See Part V., Section 4.12. of the NIFA Grants.gov Application Guide (Field 12 on the Form) for instructions regarding mandatory Felony Convictions or Tax Delinquent Status.

PART V—APPLICATION REVIEW REQUIREMENTS

A. General

We evaluate each application in a 2-part process. First, we screen each application to ensure that it meets the administrative requirements as set forth in this RFA. Second, a technical review panel will evaluate applications that meet the administrative requirements.

We select reviewers based upon their training and experience in relevant scientific, extension, or education fields, taking into account the following factors: (a) The level of relevant formal scientific, technical education, or extension experience of the individual, as well as the extent to which an individual is engaged in relevant research, education, or extension activities; (b) the need to include as reviewers experts from various areas of specialization within relevant scientific, education, or extension fields; (c) the need to include as reviewers other experts (e.g., producers, range or forest managers/operators, and consumers) who can assess relevance of the applications to targeted audiences and to program needs; (d) the need to include as reviewers experts from a variety of organizational types (e.g., colleges, universities, industry, state and federal agencies, and private profit and non-profit organizations) and geographic locations; (e) the need to maintain a balanced composition of reviewers with regard to minority and female representation and an equitable age distribution; and (f) the need to include reviewers who can judge the effective usefulness of each application to producers and the general public.

When each peer review panel has completed its deliberations, the responsible program staff of the Aquaculture Research program will recommend that the project: (a) be approved for support from currently available funds; or (b) be declined due to insufficient funds or unfavorable review.

The Aquaculture Research program reserves the right to negotiate with the PD/PI and/or with the submitting organization or institution regarding project revisions (e.g., reductions in the scope of work, funding level, period, or method of support) prior to recommending any project for funding.

B. Evaluation Criteria

We will use the evaluation criteria below to review applications submitted in response to this RFA:

The three evaluation criteria given below will be weighted equally. For the proposals selected for funding, the budget justification documents are analyzed in detail by the program as well as grants management for appropriateness of the costs proposed.

1. Proposal Relevance and Effectiveness— This ascertains if the proposed work: is applied research directed toward one of the four Program Area Priorities identified in this RFA; directly addresses major constraints that currently limit development and progress of domestic aquaculture; and will accelerate development of the domestic aquaculture industry.
2. Technical/Scientific Merit— This assesses: whether the approach is technically sound and innovative; whether there are clear project goals and objectives; if the methods are

appropriate and the proposal includes all components necessary to achieve goals and objectives; if the proposal includes a concrete, unambiguous, specific desired outcome and has a high probability of achieving that outcome; and if the proposal includes a way to objectively determine its success at achieving its outcomes.

3. Overall Qualifications of Applicants— This ascertains whether the applicant and others on the team possess: the necessary education, experience, and training; a demonstrated record of successful technology transfer to end-users outside of direct scientific peers; and the facilities and resources to accomplish the project. This includes applicant’s record of achievement with previous funding, as well as the qualifications of project partners. If the proposal includes the use of outside consultants not yet identified, this criterion includes how clearly the selection factors for the outside consultants are set out, and the expected qualifications of the consultants based on those selection factors.

Center of Excellence Status

All eligible applicants will be competitively peer reviewed (as described in Part V, A. and B. of this RFA), and ranked in accordance with the evaluation criteria. Those that rank highly meritorious and requested to be considered as a center of excellence will be further evaluated by the peer panel to determine whether they have met the standards to be centers of excellence (Part III C. and Part IV B.). In instances where they are found to be equally meritorious with the application of a non-center of excellence, based on peer review, selection for funding will be weighed in favor of applicants meeting the center of excellence criteria. NIFA will effectively use the center of excellence prioritization as a “tie breaker”. Applicants that rank highly meritorious but who did not request consideration as a center of excellence or who are not deemed to have met the centers of excellence standards may still receive funding.

In addition, the applicant’s Notice of Award will reflect that, for the particular grant program, the applicant meets all of the requirements of a center of excellence. Entities recognized as centers of excellence will maintain that distinction for the duration of their period of performance or as identified in the terms and conditions of that award.

C. Conflicts of Interest and Confidentiality

During the peer evaluation process, we take extreme care to prevent any actual or perceived conflicts of interest that may impact review or evaluation. See http://www.nifa.usda.gov/business/competitive_peer_review.html for further information about conflicts of interest and confidentiality as related to the peer review process.

D. Organizational Management Information

Specific management information relating to an applicant shall be submitted on a one time basis, with updates on an as needed basis. This requirement is part of the responsibility determination prior to the award of a grant identified under this RFA, if such information has not been provided previously under this or another NIFA program. We will provide you copies of forms

recommended for use in fulfilling these requirements as part of the pre-award process. Although an applicant may be eligible based on its status as one of these entities, there are factors that may exclude an applicant from receiving federal financial and nonfinancial assistance and benefits under this program (e.g., debarment or suspension of an individual involved or a determination that an applicant is not responsible based on submitted organizational management information).

E. Application Disposition

An application may be withdrawn at any time before a final funding decision is made regarding the application. Each application that is not selected for funding, including those that are withdrawn, will be retained by the Aquaculture Research program for a period of three years.

PART VI—AWARD ADMINISTRATION

A. General

Within the limit of funds available for such purpose, the NIFA awarding official shall make grants to those responsible, eligible applicants whose applications are judged most meritorious under the procedures set forth in this RFA. The date specified by the NIFA awarding official as the effective date of the grant shall be no later than September 30 of the federal fiscal year in which the project is approved for support and funds are appropriated for such purpose, unless otherwise permitted by law. The project need not be initiated on the grant effective date, but as soon thereafter as practical so that project goals may be attained within the funded project period. All funds granted by NIFA under this RFA may be used only for the purpose for which they are granted in accordance with the approved application and budget, regulations, terms and conditions of the award, applicable federal cost principles, USDA assistance regulations, and NIFA General Awards Administration Provisions at 7 CFR part 3430, subparts A through E.

B. Award Notice

The award document will provide pertinent instructions and information including, at a minimum:

- (1) Legal name and address of performing organization or institution to which the director has issued an award under the terms of this request for applications;
- (2) Title of project;
- (3) Name(s) and institution(s) of PDs chosen to direct and control approved activities;
- (4) Identifying award number and the Federal Agency Identification Number assigned by NIFA;
- (5) Project period, specifying the amount of time NIFA intends to support the project without requiring recompetition for funds;
- (6) Total amount of financial assistance approved for the award;
- (7) Legal authority(ies) under which the award is issued;
- (8) Appropriate Catalog of Federal Domestic Assistance (CFDA) number;
- (9) Applicable award terms and conditions (see <http://www.nifa.usda.gov/business/awards/awardterms.html> to view NIFA award terms and conditions);
- (10) Approved budget plan for categorizing allocable project funds to accomplish the stated purpose of the award; and

(11) Other information or provisions deemed necessary by NIFA to carry out its respective awarding activities or to accomplish the purpose of a particular award.

C. Administrative and National Policy Requirements

Several federal statutes and regulations apply to grant applications considered for review and to project grants awarded under this program. These may include, but are not limited to, the ones listed on the NIFA web page - <http://nifa.usda.gov/federal-regulations>.

NIFA Federal Assistance Policy Guide—a compendium of basic NIFA policies and procedures that apply to all NIFA awards, unless there are statutory, regulatory, or award-specific requirements to the contrary is available at <http://nifa.usda.gov/policy-guide>.

Responsible and Ethical Conduct of Research

Please refer to Part II, D. for more information.

D. Expected Program Outputs and Reporting Requirements

The output and reporting requirements are included in the award terms and conditions (see <http://www.nifa.usda.gov/business/awards/awardterms.html> for information about NIFA award terms). If there are any program or award-specific award terms, those, if any, will be identified in the award.

Project Meetings

In addition to reviewing (and monitoring the status of) progress and final technical reports and financial reports, NIFA Program Officers may use regular and periodic conference calls to monitor the awardee's performance as well as PD conferences, workshops, meetings, and symposia to not only monitor the awards, but to facilitate communication and the sharing of project results and impacts. These opportunities also serve to eliminate or minimize NIFA funding of unneeded duplicative project activities. Required attendance at these conference calls, conferences, workshops, meetings, and symposia will be identified in the RFA and the awardee should develop a proposal accordingly. Applicants are required to attend the annual PD meeting and have to budget the costs for attending the PD meeting in their proposal.

PART VII—AGENCY CONTACT

Applicants and other interested parties are encouraged to contact:

Programmatic Contact –

Dr. Gene W. Kim
National Program Leader, Aquaculture
U.S. Department of Agriculture
National Institute of Food and Agriculture
Institute of Food Production and Sustainability
800 9th St., SW; Washington, DC 20024
Telephone: (202) 401-1108
E-mail: Gene.W.Kim@nifa.usda.gov

Dr. Lakshmi Matukumalli
National Program Leader
U.S. Department of Agriculture
National Institute of Food and Agriculture
Institute of Food Production and Sustainability
800 9th St., SW; Washington, DC 20024
Telephone: (202) 401-1766
Fax: (202) 401-6071
E-mail: lmatumalli@nifa.usda.gov

Administrative/Business Contact –

Duane Alphs
Awards Management Division
National Institute of Food and Agriculture, USDA; STOP 2271
1400 Independence Avenue, SW
Washington, DC 20250-2271
Telephone: 202-401-4326
Email: dalphs@nifa.usda.gov

Rochelle McCrea
Awards Management Division
National Institute of Food and Agriculture, USDA; STOP 2271
1400 Independence Avenue, SW
Washington, DC 20250-2271
Telephone: 202-401-2880
Email: rmccrea@nifa.usda.gov

PART VIII—OTHER INFORMATION

A. Access to Review Information

We will send copies of reviews, not including the identity of reviewers, and a summary of the panel comments to the applicant PD after the review process has been completed.

B. Use of Funds; Changes

1. Delegation of Fiscal Responsibility

Unless the terms and conditions of the award state otherwise, awardees may not in whole or in part delegate or transfer to another person, institution, or organization the responsibility for use or expenditure of award funds.

2. Changes in Project Plans

a. The permissible changes by the awardee, PD(s), or other key project personnel in the approved project shall be limited to changes in methodology, techniques, or other similar aspects of the project to expedite achievement of the project's approved goals. If the awardee or the PD(s) is uncertain as to whether a change complies with this provision, the question must be referred to the Authorized Departmental Officer (ADO) for a final determination. The ADO is the signatory of the award document, not the program contact.

b. The awardee must request, and the ADO must approve in writing, all changes in approved goals or objectives prior to effecting such changes. In no event shall requests be approved for changes that are outside the scope of the original approved project.

c. The awardee must request, and the ADO must approve in writing, all changes in approved project leadership or the replacement or reassignment of other key project personnel, prior to effecting such changes.

d. The awardee must request, and the ADO must approve in writing, all transfers of actual performance of the substantive programmatic work in whole or in part and provisions for payment of funds, whether or not federal funds are involved, prior to instituting such transfers, unless prescribed otherwise in the terms and conditions of the award.

e. The project period may be extended without additional financial support, for such additional period(s) necessary to complete or fulfill the purposes of an approved project, but in no case shall the total project period exceed any applicable statutory limit or expiring appropriation limitation. The terms and conditions of award include information about no-cost extensions of the award and when ADO's prior approval is necessary.

f. Changes in Approved Budget: Unless stated otherwise in the terms and conditions of award, changes in an approved budget must be requested by the awardee and approved in writing by the

ADO prior to instituting such changes, if the revision will involve transfers or expenditures of amounts requiring prior approval as set forth in the applicable Federal cost principles, Departmental regulations, or award.

C. Confidential Aspects of Applications and Awards

When an application results in an award, it becomes a part of the record of NIFA transactions, available to the public upon specific request. Information that the Secretary determines to be of a confidential, privileged, or proprietary nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked within the application. The original copy of an application that does not result in an award will be retained by the Agency for a period of three years. Other copies will be destroyed. Such an application will be released only with the consent of the applicant or to the extent required by law. An application may be withdrawn at any time prior to the final action thereon.

D. Regulatory Information

For the reasons set forth in the final Rule related Notice to 2 CFR part 415, subpart C , this program is excluded from the scope of the Executive Order 12372 which requires intergovernmental consultation with State and local officials. Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35), the collection of information requirements contained in this Notice have been approved under OMB Document No. 0524-0039.

E. Definitions

Please refer to [7 CFR 3430, Competitive and Noncompetitive Non-formula Financial Assistance Programs--General Award Administrative Provisions](#), for applicable definitions for this NIFA grant program.